10 Transportation

10.1 Roads

Eastlake has 138.68 miles of local roads, all of which are paved with asphalt or concrete (Table 10.1). Eastlake is second in the county with the most amount of local roads, only Mentor has more with 225 miles. The next closest city to Eastlake is Willoughby City and they have 68.32 miles of local roads. Both Mentor and Willoughby are larger cities in land area than Eastlake. Mentor is 28.6 square miles and Willoughby is 10.21 square miles while Eastlake is 6.58 square miles. This translates to 7.9 miles of road per square mile for Mentor, 6.7 miles of road per square mile for Willoughby and 21.1 miles of road per square mile for Eastlake.

Eastlake is an incorporated community, so there are no roads that the county maintains. There are 13.18 miles of state highways. There are no federal highways in the community. Regardless of their classifications, the City of Eastlake has to maintain and plow all roads in their community.

Table 10.1 Local roads per square mile

	Area	***Road Mileage***			
Community	*Sq. Mi.*	*Local*	*County*	*State*	*Federal*
Eastlake	6.58	138.68	0	13.18	0
Mentor	28.4	225	0	30.09	7.35
Willowick	2.5	41	0	2.5	0.5
Wickliffe	4.68	43.81	0	5.2	4
Willoughby	10.21	68.32	0	12.68	6
Lake County		954.48	151.79	143.72	99.11

(Lake County Engineer)

10.2 Traffic

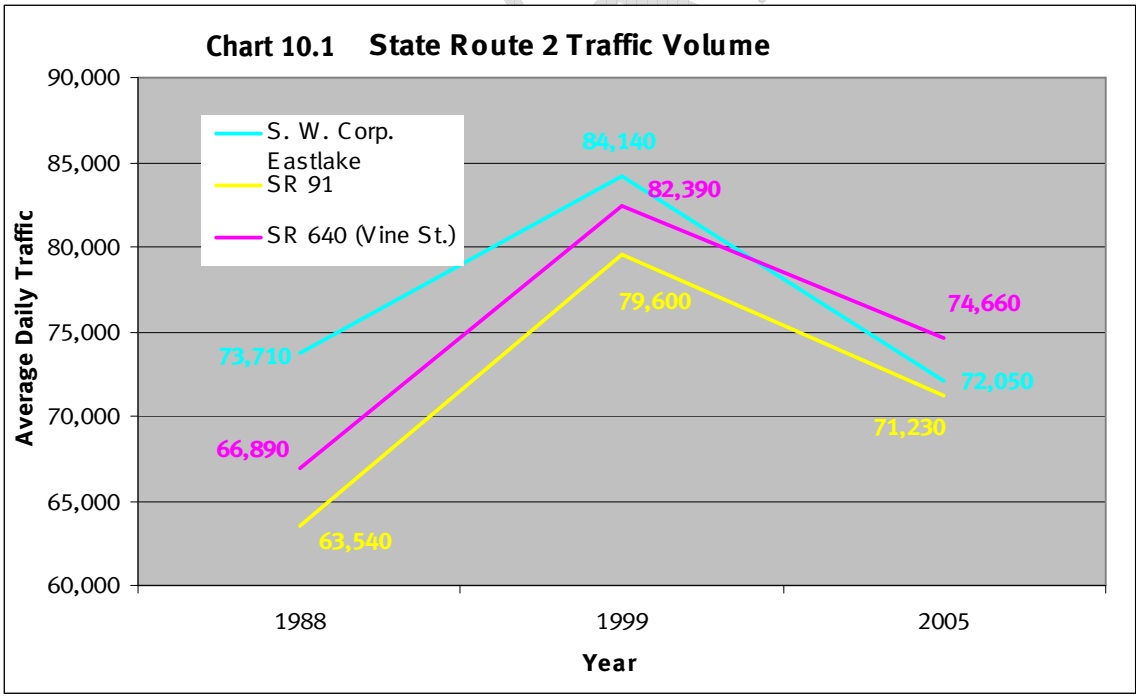
According to the Ohio Department of Transportation, average daily traffic (ADT's) counts on Eastlake's primary thoroughfares increased from 1988-1999 (Table 10.2). A close examination of the reduced 2005 ADT's indicate the impact of the major SR 2 construction project. Post construction ADT's are expected to increase once the SR 2 project is completed.

Improvements to SR 2 in the City of Eastlake were in progress at the time this plan was prepared and are expected to continue through 2010.

Table 10.2

Section Begins		Total Vehicles			Inc/Decrease
SR2		***1988***	***1999***	***2005***	***1988-2005***
U 02.22	S. W. Corp. Eastlake	73,710	84,140	72,050	-1,660
U 03.21	SR 91	63,540	79,600	71,230	7,690
U 03.99	SR 640 (Vine St.)	66,890	82,390	74,660	7,770
SR 91		***1988***	***1999***	***2005***	
U 04.23	S. Corp. Eastlake	27,730	31,290	33,510	5,780
U 04.56	SR 2	32,700	28,870	26,820	-5,880
U 04.77	Curtis Blvd.	26,070	23,890	22,460	-3,610
U 05.04	SR 640 (Vine St.)	20,150	20,760	17,860	-2,290
U 05.49	Stevens Blvd.	13,140	16,920	16,080	2,940
SR 283		***1988***	***1999***	***2005***	
U 03.27	W. Corp. Timberlake	9,020	9,230	8,600	-420
U 03.83	SR 91 (Solon Willo Rd.)	16,810	18,300	16,720	-90
U 06.79	W. Corp. Willoughby	9,310	9,050	9,190	-120
SR 640		***1988***	***1999***	***2005***	
U 00.95	W. Corp. Eastlake	18,320	14,610	16,570	-1,750
U 01.74	SR 91 (Solon Willo Rd.)	17,330	17,520	15,340	-1,990
U 02.35	SR 2	20,260	27,680	23,380	3,120

(Ohio Dept. of Transportation)



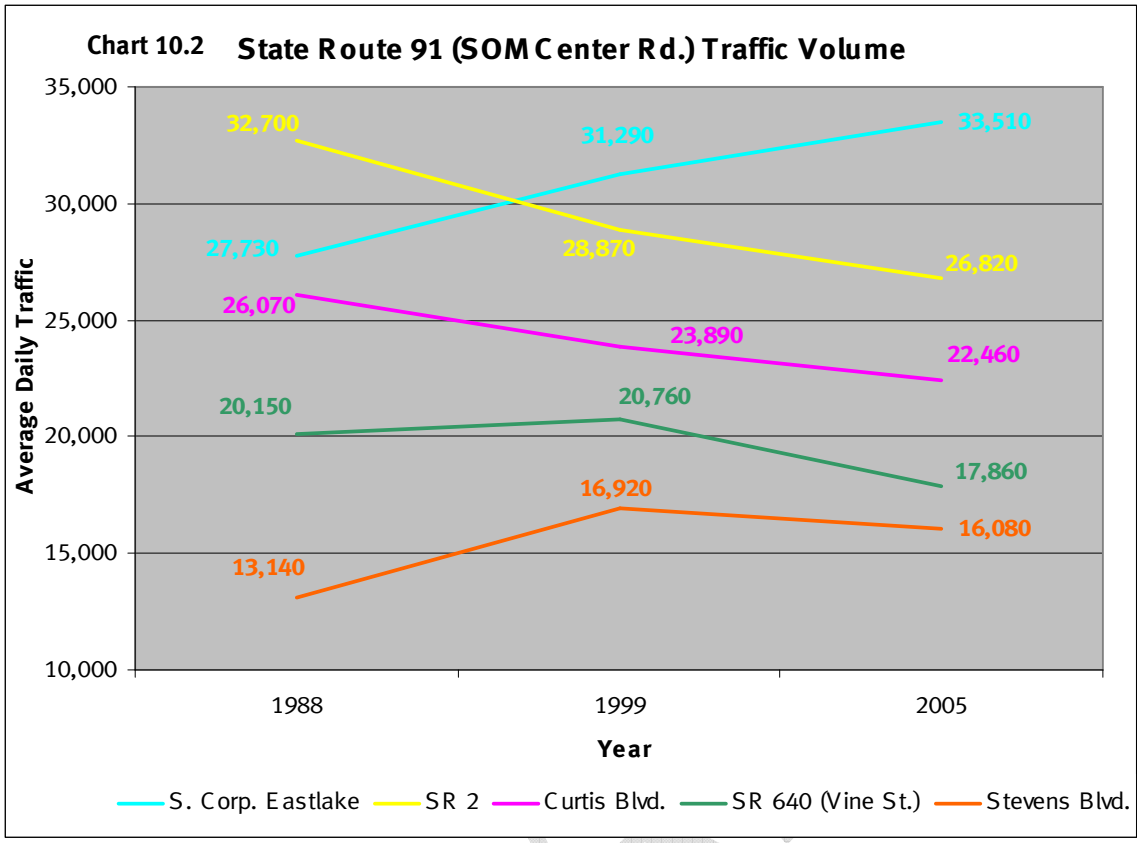


Chart 10.2
State Route 91 (SOM Center Rd.) Traffic Volume
35,000
30,000
25,000
20,000
15,000
10,000
Average Daily Traffic
32,700
31,290
33,510
27,730
28,870
26,820
26,070
23,890
22,460
20,150
20,760
17,860
16,920
16,080
13,140
1988
1999
2005
Year
S. Corp. Eastlake
SR 2
Curtis Blvd.
SR 640 (Vine St.)
Stevens Blvd.

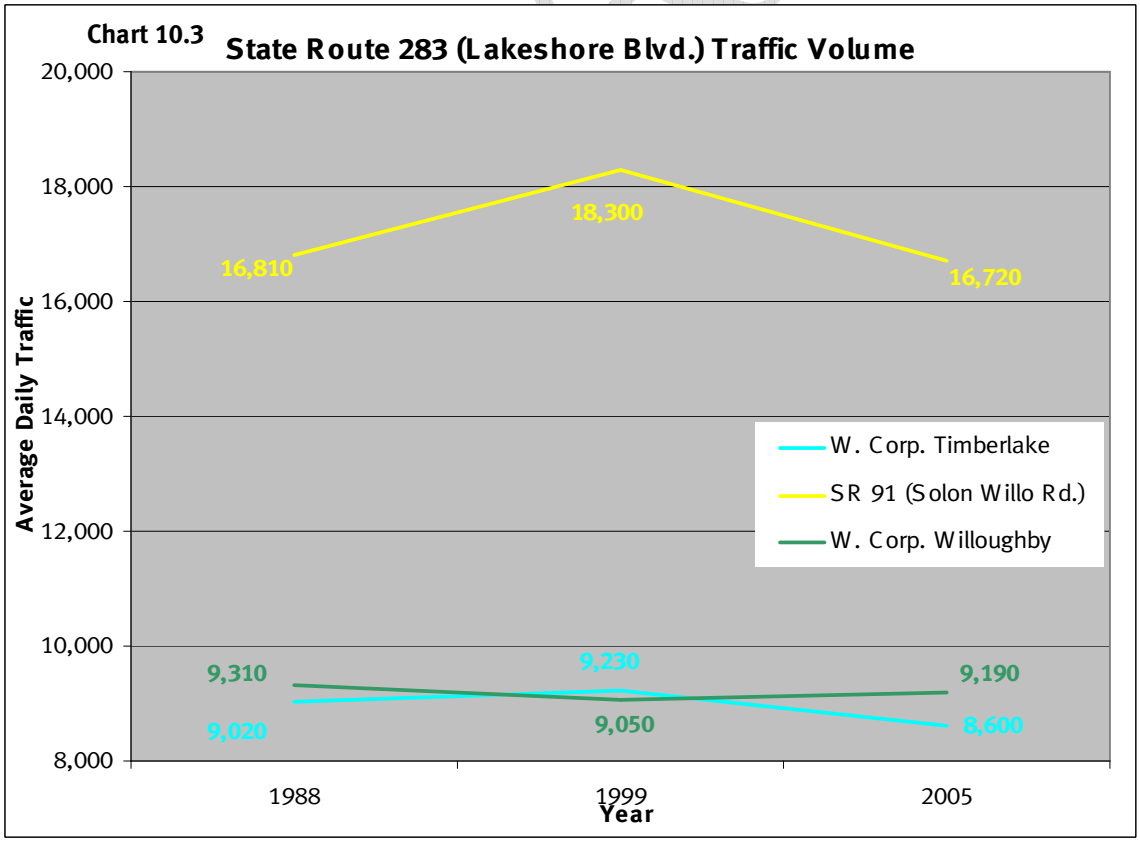
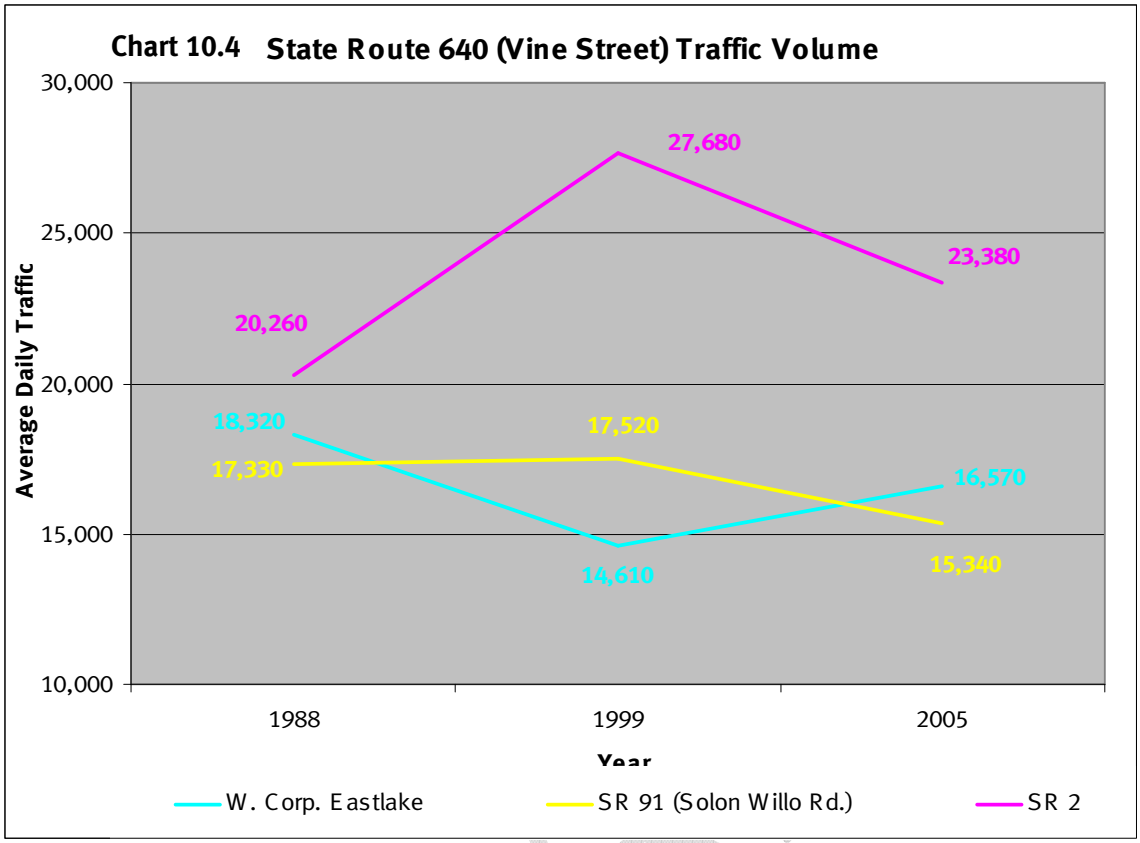


Chart 10.3
State Route 283 (Lakeshore Blvd.) Traffic Volume
20,000
18,000
16,000
14,000
12,000
10,000
8,000
Average Daily Traffic
18,300
16,810
16,720
9,310
9,230
9,190
9,020
9,050
8,600
1988
1999
2005
Year
W. Corp. Timberlake
SR 91 (Solon Willo Rd.)
W. Corp. Willoughby



10.3 Rail Roads

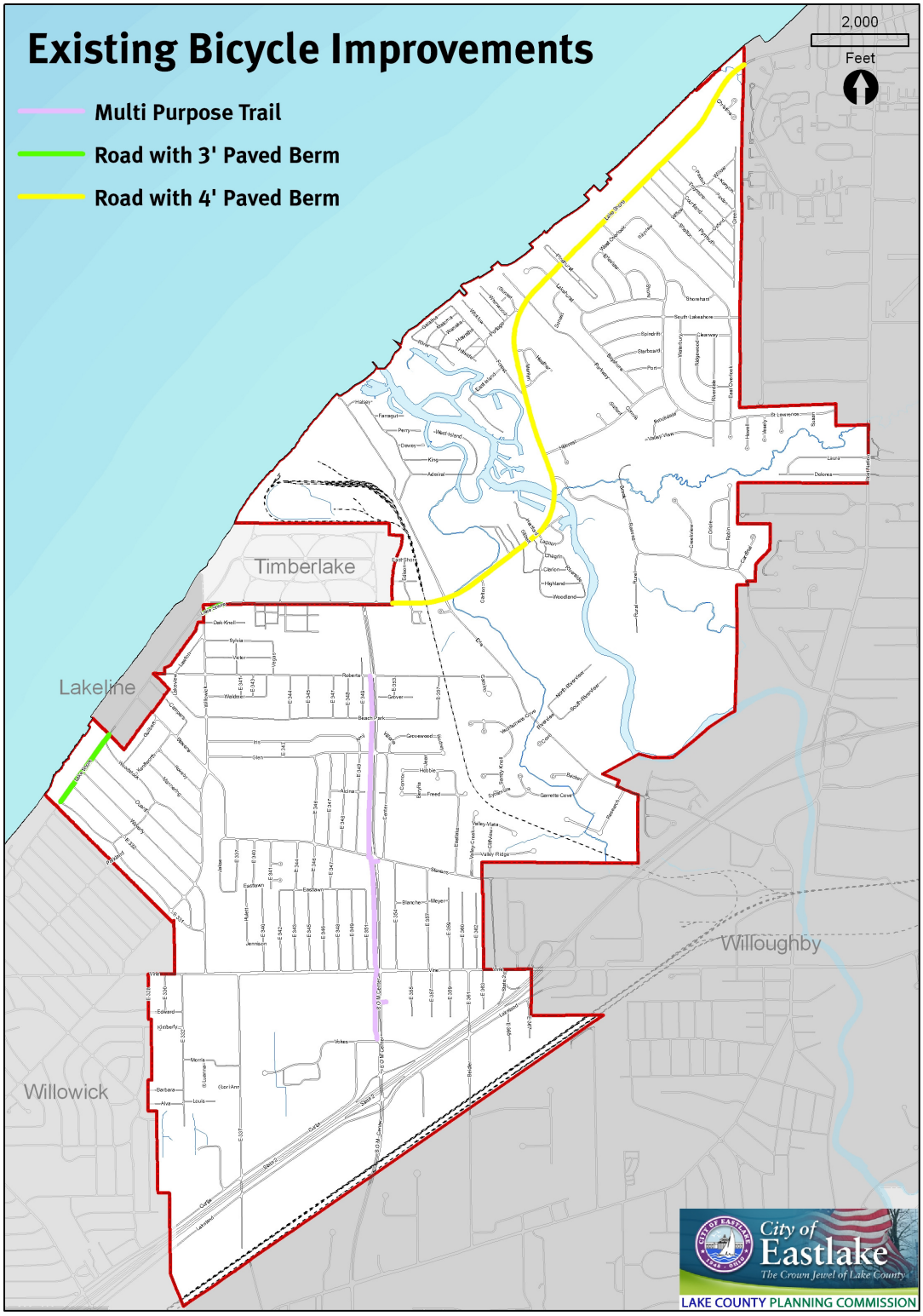
There is only one rail road line in the City of Eastlake. It is used to bring coal to the First Energy Plant. There are two rail road crossings on this line. There are lights at Roberts Road and the overpass on Lake Shore Blvd.

10.4 Bike Trails and Routes

There is a paved three foot berm along Lake Shore Blvd. from the Willowick border to State Route 91 Map 10.1). There also are four foot berms along Lake Shore Blvd. from State Route 91 to the Willoughby border. These berms are marked with white lines and not meant for automobile traffic. There is also a multi-purpose trail running along the west side of SR 91. This trail is separated from the road and the adjacent properties by fences, but this trail is connected to two pedestrian bridges, one by Stevens Blvd. and one by the Captain's Stadium.

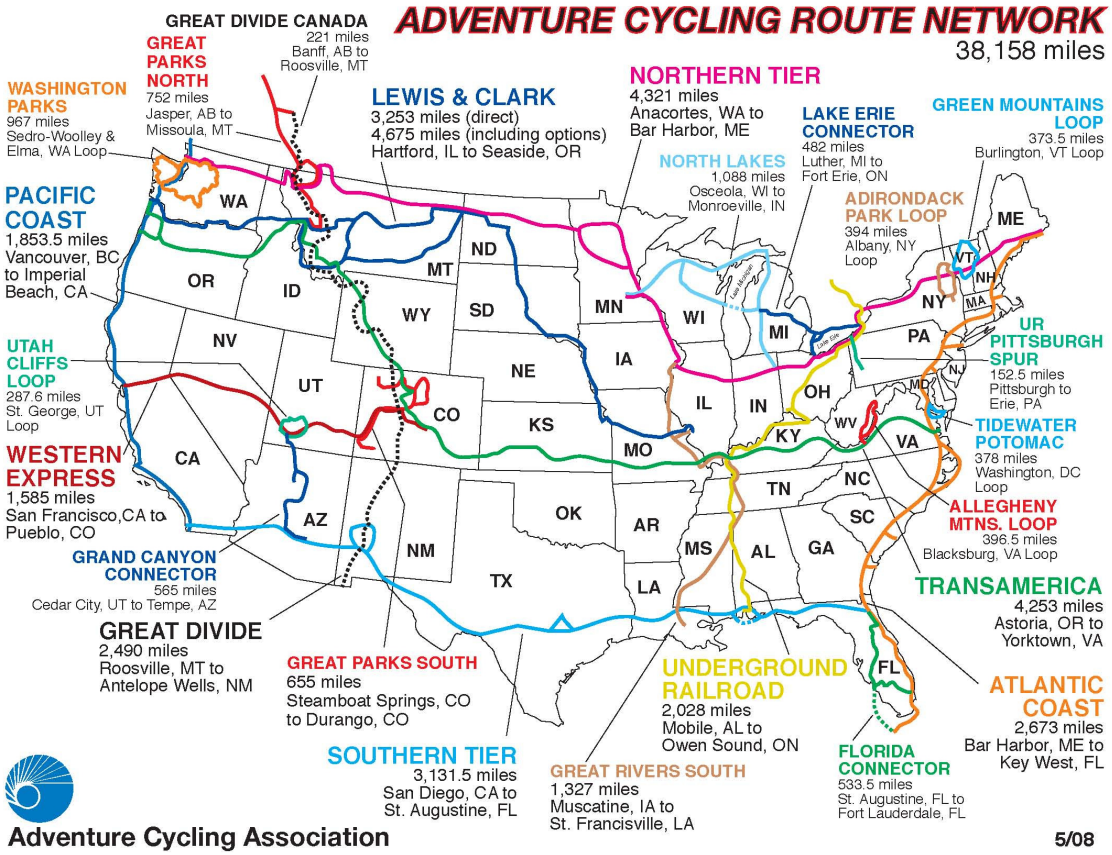
There is a proposal to connect the Eastlake multi-purpose trail with the Cleveland Metroparks North Chagrin Trail in Mayfield Village along SR 91. This project would be done in two phases, the first phase would connect to the existing trail from Mayfield Village to Euclid Avenue. It will be build a 10 foot wide multi-purpose trail in the right-of-way of SR 91. The second phase would connect from Euclid Avenue to the existing Eastlake trail.

Map 10.1: Bicycle Accommodations



Adventure Cycling Association is a nonprofit organization that inspires people of all ages to travel by bicycle for fitness, fun, and self-discovery. It was founded in 1973 and has 44,500 members nationwide. They research and produce cycling maps for our Adventure Cycling Route Network, one of the largest route networks in the world at 38,158 miles (and growing). One of their trails is the Northern Tier Trail that starts in Anacortes, WA, and ends in Bar Harbor, ME. This 4,322 mile trail runs along Lake Shore Blvd. in Eastlake.

Map 10.2: Bicycle Trails



Bicycles and public transportation: Laketran routes 1-6 provide buses with bike racks to transport personal bicycles. The Laketran commuter express does not provide bike racks to transport personal bicycles, but Laketran provides bike lockers that are available at the Madison, Mentor and Wickliffe Park-n-Rides.

10.5 Public Transportation

Laketran, the public transit agency serving Lake County, operates a Dial-a-Ride service. The service offers door-to-door, assisted transportation for all Lake County residents, including those in the City of Eastlake. Dial-a-Ride picks up users at their homes, and drops them off at work, medical appointments, or any other destination in Lake County. It also provides transportation to medical appointments at other regional medical facilities.

Dial-a-Ride is not intended for regular commuters, but rather for senior citizens and the physically disabled. It can be used as temporary transportation for those whose vehicles have broken down.

Laketran route 3 (Green Line) has stops at Surfside Apartments, Lake Shore Blvd. SR 91 and Stevens Blvd. and Willowick Dr. This bus line operates along Lake Shore Blvd., so it will provide service to the Eastlake Library, Willowick Library, Shoregate Shopping Center, Shoreway Circle Shopping Center, Lakeland Community College and Great Lakes Mall.

Connections to Laketran's Commuter Express #12 can be accessed at the Wickliffe Park-n-Ride and connections to Laketran's Commuter Express #11 to Downtown Cleveland can be accessed at Lakeland Community College. Laketran route 6 (Gold Line) has stops at Classic Park Transit Center and Vine at East 337th Street. It provides service to the Bryant and Stratton College, Wickliffe Library, Shops of Willoughby Hills, Shoregate Shopping Center, Shoreway Circle Shopping Center, Lakeland Community College and Great Lakes Mall. You can also transfer to the Route 14 commuter service to Cleveland State University and downtown Cleveland. At the time this plan was prepared, there is one bus eastbound and one bus westbound per hour on weekdays, and there is one bus eastbound and one bus westbound every two hours on the weekend.

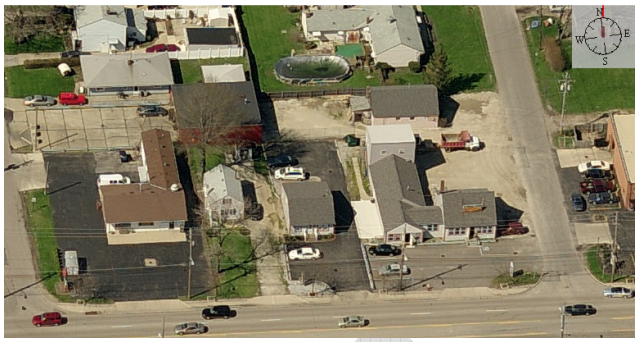
10.6 Access management

Businesses along Vine Street usually have unfettered access to the road with many businesses often having two or more driveways or curb cuts from the street to provide access (Maps 10.3, 10.4). Many access problems are the result of poor subdivision, zoning and site planning requirements and practices in the past.

Eastlake currently has no access management policy or requirements.

Access management is a process for providing access to land development, while preserving traffic flow on surrounding roadways in terms of safety, capacity, and speed. This is done by managing location, design and operation of driveways, median openings, and street

connections along a road. It also includes use of dedicated turn lanes or bypass lanes, to keep turning vehicles from blocking through traffic.



Poor access management: Multiple access points in a short distance and continuous curb cut

Access management is used to improve vehicular and pedestrian safety, maintain road capacity and reduce congestion, and enhance community character and aesthetics.

By maintaining the capacity and level of service of the road, access management protects the substantial public investment in transportation, and reduces the need for expensive improvements. Studies conducted in Florida and Colorado suggest that poor spacing, design, and location of driveways lower average travel speed, and improvements in access management can increase roadway capacity. Research has also shown that access management helps reduce the rate and severity of traffic accidents. Good definition and spacing of driveways also improves pedestrian and bicycle safety, by reducing the potential for conflicts with turning vehicles.

From a land development perspective, access management requirements further the orderly layout and use of land and help discourage poor subdivision and site design. The quality of site access is also important to the success of a development project. *The Urban Land Institute Shopping Center Development Handbook* warns that poorly designed entrances and exits not only present a traffic hazard, but also cause congestion that can create a poor image of the center. Reducing the number and frequency of driveways and median openings also improves the appearance of major corridors. More land is freed for landscaping, the visual dominance of paved areas is reduced, and scenic or environmental features can be protected. Access management requires coordination of land use and transportation objectives. The city can address the interdependence of land division and access and add access management regulations in its zoning regulations. Access management techniques usually include the following:

- Regulation of driveway spacing, corner clearance, and sight distance.
- Increased minimum lot frontage and setback requirements along thoroughfares.
- Restriction on the number of driveways for existing lots, and consolidating access wherever possible.
- Requirements for driveway design elements and conditions requiring their use.
- Requiring internal connections, unified circulation and parking plans between adjacent properties.
- Treating properties under the same ownership and those developed as a unified project as one property for the purpose of access control.
- Using frontage and rearage roads to serve as a common access drive for properties along a corridor.
- Restriction of flag lots and regulate private roads and access easements.
- Minimizing commercial strip zoning and promote mixed use and flexible zoning.

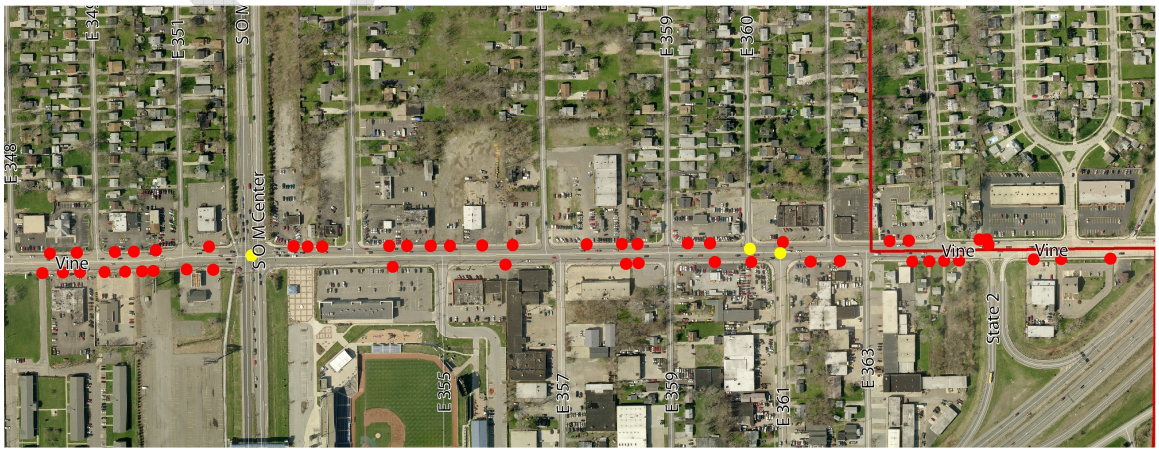
Driveway location and design: Driveway location and design affects the ability of a driver to safely and easily enter and exit a site. If not properly placed, exiting vehicles may be unable to see oncoming vehicles and motorists. Redundant driveways along city roads add points of conflict that make traffic patterns unpredictable, increase the risk of accidents, and contribute to traffic delays. If the turning radius and width are very wide, fast maneuvers on and off the site pose safety hazards for pedestrians, bicycles, and vehicles. Without an adequate throat or stacking lane, vehicles may block traffic while waiting to enter a site, or block parking rows while waiting to leave.

Driveway location and design can be regulated by amending parking lot design standards in the zoning code.

Driveway number and spacing: Decreasing the number of driveways and increasing their spacing can increase safety and traffic flow. Business owners sometimes believe multiple driveways offer easier, more convenient access to potential customers. However, they increase the number of conflict points along the road, and reduce the spacing between driveways. Redundant driveways increase points where traffic can back up and accidents can occur.

Map 10.3: Vine Street Driveway Access Points (West End)

Map 10.4: Vine Street Driveway Access Points (East End)



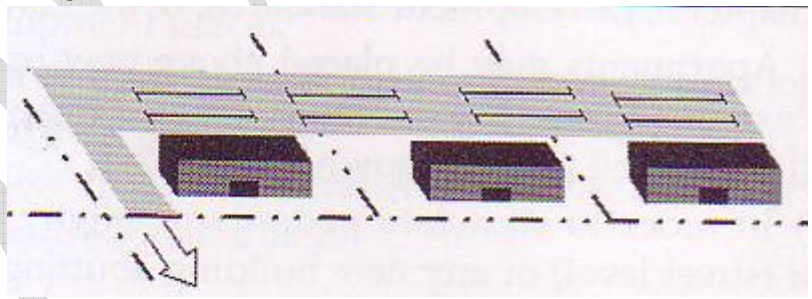
Driveway number and spacing for commercial uses should be regulated by the zoning code parking area standards. Required shared access, discussed later in this section, can also help fix problems with closely spaced and redundant driveways.

Encouraging common driveways for residential uses can reduce the number of access points on collector roads. This also has the effect of making building sites more private. Lots can be platted with more flexibly, and "bowling alley" frontage lots can be avoided, resulting in larger side yards and increased spacing between houses.

A common drive can either be permanent access easements or tracts dedicated for use as private roads. Ohio state law gives developers the right to build private streets. State law does not prohibit access easements. Covenants address maintenance of shared driveways; grading, plowing, patching and so on, along with fees.

Corner Clearance: Corner clearance is the distance from an intersection to the nearest driveway. Corner clearance standards, and restrictions on driveways in acceleration, deceleration and right turn lanes, preserve good traffic operations at intersections, and the safety and convenience of access to corner properties. Having a larger minimum lot size requirement for corner lots will protect the development potential and market value of corner properties. It will also help assure that these properties do not experience access problems as traffic volumes grow.

Joint and cross access: Joint and cross access involves connecting neighboring properties, and consolidating driveways serving more than one property. This allows vehicles to circulate between adjacent businesses without having to re-enter the road. Joint access is also used to connect major developments, reduce the number of driveways, and increase driveway spacing where highway frontage has been subdivided into small lots. This allows more intensive development of a corridor, while maintaining traffic operations and safe and convenient access to businesses.



In many communities, larger parcels are often developed as a unified site, with joint and cross access planned from the start, even if the site will be subdivided into several commercial lots. In Eastlake, land along collector arterial roads is often subdivided and developed incrementally over a long period, with no unified plan for a site. Each of the resulting lots is developed individually, with no coordination of access. The Vineyards is an example.

One way that joint access can be implemented is by prohibiting direct access to an arterial or collector road from outparcels and lots that are carved from larger lots. Instead, the owner of the original parcel must provide access rights from the old lot to the new. If the original host lot is not immediately developed, the developer of the newer lot may be allowed a temporary driveway, which would be closed when the original lot is developed. The easement or access agreement is recorded with the property records, along with a joint maintenance agreement, and an agreement to close the temporary driveway when the joint access system is complete.

As an alternative, property owners can also be required to create a binding joint access and cross easement plan before subdividing their property.

For new development on new and existing lots, access rights and stub-out drive aisles to adjacent parcels would be required by zoning resolution parking requirements, along with the appropriate access easements and/or agreements. For lots that are developed, creating stub-out driveways and recording access easements and/or agreements would be required if the business or use on the property changed, or as a condition of a building permit for major expansion or renovation.

Because access is shared, it will also be easier to share parking areas. The zoning code should be amended to allow a reduced number of parking spaces for a use if access is shared.